

**Abstract****Hybrid Sensing Techniques for Position Determination**

The invention provides for a method and apparatus for improving error-correction in non-  
5 contact optical position sensing. The primary application is in page-based data input contexts  
such as form-filling and paper-based web interfaces and GUIs. The invention utilises a  
combined measurement of the relative movement of a device in relation to a fixed surface and  
at least one measurement of the absolute position of the device. Absolute measurement of  
position is preferably carried out using a position-encoded glyph bed embedded on the fixed  
10 surface. Based on the at least single absolute measurement, the relative measurement of the  
devices movement, or stroke, is normalised to the properly measure absolute position and thus  
substantial interruptions in the detection of the absolute stroke position can be tolerated and  
corrected for.